

REMARKS

Claims 1-45 have been rejected under 35 U.S.C. § 103(a) for obviousness over a combination of references based primarily on U.S. Patent Nos. 4,921,929 to Sherman and 6,137,903 to Dichter.

In particular, claims 1, 2, 4, 5, 7, 9, 11-18, 20, 21, 23, 25 and 27-32 stand rejected for obviousness over the Sherman and Dichter patents. Claims 3 and 19 stand rejected for obviousness over the Sherman and Dichter patents in view of U.S. Patent No. 6,459,453 to Eichel. Claims 6 and 22 stand rejected for obviousness over the Sherman and Dichter patents in view of U.S. Patent No. 4,887,906 to Koehler. Claims 8 and 24 stand rejected for obviousness over the Sherman and Dichter patents in view of U.S. Patent No. 6,122,391 to Ringland et al. Claims 10 and 26 stand rejected over the Sherman and Dichter patents in view of U.S. Patent No. 5,559,604 to Arai. Claims 33 and 38 stand rejected over the Sherman and Dichter patents in view of U.S. Patent No. 6,563,510 to Rice et al. Finally, claims 34-37 and 39-45 stand rejected over the combination of the teachings of the Sherman, Dichter, Rice and Ringland patents. Applicants respectfully traverse these rejections for the following reasons.

The present invention relates to methods and systems for matching decorative products based on color. A decorative product in a database of products of the same type is matched to another decorative product of a different type in another database based on their coordinating colors.

Claim 1 is directed to a method of selecting decorative products based on color. A plurality of decorative product databases are provided in step (1). Each database contains information on one type of decorative product. For example, one database contains a listing of wallpaper and another database lists floor coverings. See claim 8. Each decorative product in all the databases has color data (a color value) associated therewith. In step (2), the user selects at least one decorative product in one or more of the databases. The product selected in step (2) is to be color coordinated with another product in another database. The selected decorative product has color data associated therewith; in step (3), the color data of that selected decorative product is identified. The identified color data of the selected

decorative product serves the basis for the searching in step (4) of the other databases provided in step (1) for other decorative products that are different from the product selected initially by the user in step (2). The search of step (4) is for products having a color that coordinates with the color of the originally selected decorative product based on their respective color data. The result of the database search is provided in step (5) as at least one decorative product in one of the other databases.

An important feature of the present invention is that the starting point in the process is the selection of an original decorative product. That feature is set forth in step (2) of claim 1 and step (3) of claim 33. The method of claim 33 is specifically directed to searching for decorative products in databases which includes a database of paint.

Claims 17 and 38 parallel claims 1 and 33, respectively. Claim 17 includes a means for determining the color value of at least one selected decorative product in one of the databases. Again, this is the originally selected decorative product for which the user is seeking to coordinate with other decorative products in other databases of the system based on their colors.

The system of claim 38 coordinates decorative products in a plurality of databases based on color where one of the databases contains data on paint and the other databases contain listings of other decorative products. The paint database includes paint data. The other databases list other products and contain related paint data, i.e., information about paints that is relevant to the products in those other databases. The means for identifying related paint data of a preselected decorative product in element (4) may be color information or may be information regarding the paint which can be used to match related paint data of a preselected decorative product with decorative products in other product databases. These features are not taught or suggested by the prior art of record.

The Sherman patent is directed to a process and system for identifying and displaying all products in a computerized database which share a common characteristic. The system includes an image database which contains images of each product. The product database contains information regarding the price, manufacturer, color and location on the image database for each product. The

products may be grouped within the database by their type such as chairs, carpets or wall coverings. In operation, a user of the Sherman system specifies a product type of interest (e.g., chairs) and is provided with a list of characteristics for that product type. The user then chooses one or more of the desired characteristics, such as color. The desired characteristics may be input to the system such as by inputting colorimetry data from a color swatch. In this portion of the process (identified as step 300) the user is essentially narrowing the search for a set of products which meet a search criteria of the product type (e.g., a chair) and product characteristics (e.g., color). The system then searches for products meeting those criteria. The images of products which meet those criteria are displayed on the computer. The system and process disclosed in the Sherman patent differs from the present invention in several key aspects beyond that noted in the Office Action.

Multiple Product Databases

The present invention requires providing a plurality of decorative product databases. Each of the databases contains data on one type of decorative product with color data for each decorative product in the database. The system of the Sherman patent contains a single product database which includes a variety of product data (price, manufacturer, color and location in the image database). The products may be grouped by type (e.g., chairs and carpets) in separate file groupings. However, there is no separate decorative product database for each type of product. In the present invention, a search occurs between one database of one product type and another separate database. The Sherman patent does not disclose separate databases with searching between the databases. The Sherman system is not designed to search between the groups of files containing groups of products to identify coordinating products between types of products such as between chairs and carpets. The Sherman process is only designed to identify all the products which meet certain user defined criteria. No feature comparable to step (1) of claim 1, element (1) of claim 17, steps (1) and (2) of claim 33 and elements (1) and (2) of claim 38 is present in the Sherman patent. Moreover, there is no motivation to modify the single product database of Sherman into multiple databases for multiple product types. Sherman uses product type as a search criteria and only

seeks to identify products which meet the criteria. Sherman does not consider selecting products having coordinating colors from various product types.

Preselected Product

The starting point for the process of the present invention is a preselected decorative product. The user selects a product in one of the databases per step (2) of claim 1 and step (3) of claim 33. In claim 1, step (2) the "at least one decorative product" is a preselected decorative product. Claim 33 includes step (3) of searching for a "preselected decorative product". In both processes of claims 1 and 33, the user selects a particular product which the searching then is based upon. To the extent that the Sherman process "selects" a decorative product, that selection is actually the end point of the process and not its starting point. The selecting of a decorative product is based upon the user chosen characteristics and product type entered into the Sherman computer system.

Step (3) of claim 1 and step (4) of claim 33 require identifying the color data of the preselected decorative product. Once a user has selected a decorative product of interest for coordinating with other products, the present invention identifies the color data of that preselected decorative product. In contrast, once the Sherman process selects a decorative product and identifies it in the characteristic database and displays the product from the image database, there is no need to identify any color data for the decorative product. To the extent that color data is input into the system of Sherman, that color data is not color data of a preselected decorative product. Instead, it is data used as a search criteria.

Identify Different Decorative Products

The endpoint of the present invention is identification of a decorative product (different from the one previously selected as a starting point) in a database that differs from the database of the preselected decorative product. Element (2) of claim 17 requires means for determining color value of a "selected" product (a preselected product found in one of the product databases). Element (3) of claim 38 requires means for searching for such a preselected product. Nowhere does Sherman consider a preselected product as a starting point in a search. Steps (4)

and (5) of claim 1 and steps (5) and (6) of claim 33 require searching the databases (other than the database containing the preselected product) for another decorative product that has a coordinating color based on the color data of the preselected decorative product. The Sherman process does not use a decorative product as a starting point for identifying color data to be coordinated with color data of other decorative products. As such there can be no step of identifying a decorative product that is different from the preselected decorative product selected in step (2) of claim 1 or step (3) of claim 33. Claims 17 and 38 recite elements for performing the steps of respective claims 1 and 33. Since the Sherman patent lacks any process steps comparable to steps (5) and (6) of claim 1 and steps (5) and (6) of claim 33, it necessarily fails to disclose means for determining the color value of a preselected decorative product and means for identifying for another decorative product having a color value that coordinates with the color value of the preselected product. Claim 38 parallels claim 17 and instead of reciting color value, the tie between the database of the preselected product and the other databases of other products is "related paint data". The Sherman patent provides no motivation to relate products between decorative product databases based on information about paints.

The Office Action asserts that Sherman only fails to teach "an identification of color data of the decorative products and coordinating color based on the color data identified". As detailed above there are many more significant differences between the process and system disclosed by Sherman and the claimed invention. Sherman provides no consideration to searching based upon a preselected decorative product. Instead, a user specifies a product type and the user specifies characteristics of that product type (e.g., color). That does not constitute selecting a decorative product that already exists in one of the databases. Sherman does not consider searching for products between databases of products but only to create a single list of products. The process of Sherman does not identify the color data of a preselected decorative product and coordinate color based on the identified color data since it is not looking for decorative products that are different than a preselected decorative product. The goal of the Sherman patent is to provide a system and method for identifying products within a single database which meet

certain user defined criteria such as the product type (e.g., a chair) and the characteristic of that product (e.g., its color). There is no consideration given to coordinating products from one database to another database wherein each database contains a certain type of product (such as furniture, wall coverings, paint and the like). Nowhere in Sherman is there any motivation to alter the process and system thereof since its goals are so relatively limited.

According to the Office Action, Dichter discloses means to identify color data of a decorative product and coordinate the color to enable a color transformation of images. The Dichter patent is not particularly relevant to the claimed invention. Dichter discloses a process for changing the color and appearance of a computer image to a different color and appearance. There are no databases of existing products and no selection of products. Dichter is limited to a system for designing new products and not for selecting preexisting products based on certain criteria. As such, the teachings of Dichter are not even combinable with those of Sherman since Dichter relates to a design tool for transforming color images and the Sherman patent relates to a technique for searching and displaying products of a single database which meet a user's criteria.

None of the remaining references including Eichel, Koehler, Ringland, Arai and Rice account for the deficiencies of the Sherman or Dichter patents to disclose the method and system of the present invention. Eichel teaches searching design patterns on a computer network, Koehler teaches use of a spectrophotometer for color selection, Ringland teaches computerized selection of various decorative products and Arai teaches $L^*a^*b^*$ color measurements. None of those disclosures supplement what is lacking in the Sherman and Dichter patents, namely any motivation to modify those disclosures to even practice the method and system of the present invention of selecting a decorative product based on a preselected product by comparison of color data of that original decorative product to the color data of decorative products in other databases of products. While Rice discloses a method of paint color matching, it also fails to account for the deficiencies in the remaining cited references on the underlying aspect of the present invention, namely the use of multiple databases of decorative products for searching and identifying decorative products which coordinate with the preselected products based on the

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color data of all the decorative products or paint data related to all the decorative products.

In view of the foregoing, it should now be appreciated that claims 1-45 define over the prior art of record and are in condition for allowance. Reconsideration of the rejections and allowance of claims 1-45 are respectively requested.

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